

Appl. Serial No. 10/069,741  
Docket No. FR 000067

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**In the Abstract:**

Please amend the Abstract as indicated below.

**DETECTION AND CORRECTION OF PHASE JUMPS IN A PHASE SEQUENCE**

According to one example embodiment, a communication system includes a transmitter and a receiver for receiving symbols from a phase-shift keying modulation. The system also includes estimation means for estimating a frequency error relating to a symbol based on a sequence of symbol phases. The receiver includes calculation means for calculating a phase sequence, called an initial sequence, based on decisions made on symbols. The receiver also includes means for detecting and correcting phase jumps in this initial sequence in order to supply a phase sequence, called a final sequence, to the frequency error estimation means.

~~The invention relates to any receiver for MPSK ( $M=2^n$ ) modulation, in which an error correction device is used for correcting Trellis-type frequency errors and, upstream of this device, a phase estimation device based on decisions made on the received symbols.~~

~~When the frequency error is such that, based on a certain symbol, an error is made in the decision, this error is translated by a phase jump of  $\pm \frac{\pi}{2^{n-1}}$  in the sequence of phase estimations obtained. The frequency estimation obtained is then inaccurate.~~

~~A receiver according to the invention comprises means for calculating a phase sequence, called initial sequence, based on decisions made on symbols, and means for detecting and correcting phase jumps in this initial sequence, so as to supply a phase sequence, called final sequence, to said frequency error estimation means.~~

~~Applications: Interactive data transmission system—network head-ends.~~

~~References: Fig. 5~~